

ABSTRACT OF THE DISCLOSURE

An optical cable is embedded in a printed circuit board using a MEMS mirror to steer the photonic signal from the surface of the board to the optical cable embedded in the board's interior. The photonic signal is conducted from the surface to the embedded mirror by way of a vertical optical via. Such optical vias are used as well for coupling photonic signals between plural optical layers formed by plural flat optical cables. Some or all of the plural flat optical cables are internal to the printed circuit board. Other steering devices may be used that provide equivalent function to that of the mirrors.